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June 20, 2016

Federal Communications Commission  
Mrs. Marlene Dortch, Secretary  
445 12<sup>th</sup> Street, S.W.  
Washington, DC 20554

RE: Letter in response to RM-11681 Petition for Rulemaking: Ligado's Request to Allocate the 1675-1680 MHz band for Terrestrial Mobile Use Shared With Federal Use

Dear Ms. Dortch:

Reliable access to satellite data is vital to public safety in Alaska. The University of Alaska Fairbanks' Geographic Information Network of Alaska works closely with numerous operational emergency response organizations, including the National Weather Service, Alaska Volcano Observatory, and Alaska Fire Service. Data from satellites is absolutely critical for these operations to protect the public safety.

Alaska is dependent on a handful of subsea fiber optic cables for connection to the global communications network. The situation has been improving in recent years, however, even during non-disaster situations, serious outages remain surprisingly common. We experience significant impairments or outages yearly, on average.

Alaskan public safety operators depend on being able to directly receive satellite data to ensure continuity of operations. Direct observations and ground sensors are extremely sparse in Alaska. Satellite data is vital for activities such as detecting airborne volcanic ash in one of busiest air cargo flight corridors in the world, forecasting some of the most severe weather in the US, and fighting the more than one million acres of wildfires that burn in Alaska in an average year.

Beyond these "routine" hazards, the threat of a major natural disaster always lurks. Alaska's southern coast is one of the most volcanically and seismically active in the world. Major eruptions, earthquakes, and tsunamis have occurred in the recent past and will with absolute certainty occur in the future.

The GOES Data Collection System (DCS) will be a critical asset starting in 2017. It will allow our operational partners to continue to serve their mission during times when routine outages such as cable cuts occur, and, more importantly, during major

disaster events that destroy large parts of the communication network. Alaska simply cannot rely on “the cloud” to deliver data during a major crisis.

As one example of how the GOES DCS is vital to the US economy, the FCC should be aware that Anchorage is the second busiest air cargo airport in the US. (Memphis, FedEx’s hub, is first.) Billions of dollars of commerce pass through the flight corridor running along the Kamchatka and Aleutian volcano chain between Asia and the US. Many planes stop to refuel and resort cargo in Anchorage. The GOES-R satellite will provide a major improvement in the ability to detect and forecast airborne volcanic ash—one of the most significant hazards to aviation.

As a long standing operator of satellite receiving stations and provider of operational satellite data products, The University of Alaska Fairbanks’ Geographic Information Network of Alaska does not support the FCC’s plan to share 1675-1680 Megahertz radio spectrum between a new terrestrial broadband wireless provider venture and a vital satellite data provision service. The satellite data is simply too critical to put at risk given its constant use in weather forecasting and emergency response.

We do not believe a filtering system is adequate protection for our operations given the overwhelmingly stronger signal from the terrestrial broadband radios versus the geostationary satellite radios. Protection zones are a possible compromise but there will need to be several, including zones in all the most populous areas of Alaska, severely limiting the potential to sell this new commercial terrestrial broadband to Alaskan consumers.

To summarize:

- Alaska’s public safety depends on reliable access to satellite data.
- Alaska cannot depend on “the cloud” or “the internet” as a source of reliable satellite data feeds. Direct reception is a requirement.
- We do not believe that filtering is a viable spectrum sharing option.
- Impairing or eliminating the GOES DCS will decrease public safety in Alaska and could result in a plane flying through a volcanic ash cloud and falling from the sky or a significantly impaired response during the next, inevitable major eruption or earthquake.

Thank you for the opportunity to provide input and we hope the FCC will put the public safety of Alaskans ahead of lesser commercial interests.

Sincerely,

A handwritten signature in black ink that reads "Tom Heinrichs". The signature is written in a cursive, slightly slanted style.

Tom Heinrichs  
Director, UAF Geographic Information Network of Alaska

CC:

The Honorable John Thune, Chairman, Senate Commerce, Science and Transportation Committee

The Honorable Bill Nelson, Ranking Member, Senate Commerce, Science and Transportation Committee

The Honorable Marco Rubio, Chairman, Subcommittee on Oceans, Atmosphere, Fisheries, and Coast Guard

The Honorable Cory Booker, Ranking Member, Subcommittee on Oceans, Atmosphere, Fisheries and Coast Guard

The Honorable Lisa Murkowski, Chairman, Senate Committee on Energy and Natural Resources

The Honorable Dan Sullivan

The Honorable Fred Upton, Chairman, House Energy and Commerce Committee

The Honorable Frank Pallone, Jr, Ranking Member, House Energy and Commerce Committee

The Honorable Greg Walden, Chairman, Communications and Technology Subcommittee

The Honorable Anna G. Eshoo, Ranking Member, Communications and Technology Subcommittee

The Honorable Jim Bridenstine, Chairman, Subcommittee on Environment, House Science, Space and Technology Committee

The Honorable Suzanne Bonamici, Ranking Member, Subcommittee on Environment, House Science, Space and Technology Committee

The Honorable John Fleming, Chairman, Subcommittee on Water, Power and Oceans, House Natural Resources Committee

The Honorable Jared Huffman, Ranking Member, Subcommittee on Water, Power and Oceans, House Natural Resources Committee

The Honorable Don Young

The Honorable Lawrence E. Strickling, Assistant Secretary for Communications and Information and NTIA Administrator, Department of Commerce

The Honorable Dr. Kathryn D. Sullivan, Under Secretary of Commerce for Oceans and Atmosphere and NOAA Administrator